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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/054,083 Filing Date: January 18, 2002 Appellant(s): LING ET AL.

Paul E. Steiner (Reg. No. 41,326)

For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 01/24/2005.

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(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of invention contained in the brief is correct.

(6) Grounds of Rejection to be reviewed on Appeal

The appellant's statement of the grounds of rejection is correct.

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(7) Grouping of Claims

The rejection of claims 1,3-11, and 13-19 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

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(8) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Evidence Relied Upon

The following is a listing of the evidence (e.g., patents, publications, Official Notice, and admitted prior art) relied upon in the rejection of claims under appeal.

5,775,925	Tondreault	7-1998	
5,470,240	Suzuki	11-1995	

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(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim 1,3-11,13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tondreault US Patent 5775925 in view of Suzuki US Patent 5470240.

Regarding claim 1, Tondreault discloses a connector assembly comprising: a connector having a slot (for example, see elements 10,14, Figs 1-5) therein to receive an edge portion of a card; and a lever mechanism movably coupled to the connector(for example, see elements 22, 10,12,Figs 1-5).

Tondreault does not expressly teach the lever mechanism having an engaging surface positioned on the lever mechanism to apply a lever force on the card during insertion of the card in the slot of the connector, wherein the engaging surface is adapted to contact a contact surface on the card. The Office points out that although the card is not positively recited in the claims, Tondreault illustrates a card at element 16, Figs 1-5. Moreover, it has been held that the recitation that an element is "adapted to" perform a function is also not a positive limitation but only requires the ability to so perform. Suzuki teaches a connector assembly comprising a lever mechanism having an engaging surface positioned on the lever mechanism to apply a lever force on a card during insertion of the card in

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the slot of the connector, wherein the engaging surface is adapted to contact a contact surface on the card (for example, see elements 39(2), 21,43(2), Figs 2-7B, also see column 3, lines 47-57), which states in part, ... The first and second levers 39 are for prying in cooperation with the card 21 to put the card 21 into and out of mechanical contact with the card edge connector and to bring the connecting pads 25 into and out of electrical contact with the conductive contacts 17."

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a lever mechanism with an engaging surface as taught by Suzuki in the connector assembly as taught by Tondreault for the purpose of prying in cooperation with the circuit card to put the circuit card into and out of contact with the connector (see Suzuki column 3, lines 47-57).

Regarding claim 3, Tondreault discloses wherein the engaging surface includes a surface defined by a protuberance (for example, see elements 44,22, Figs 1-5)

Regarding claim 4, Tondreault discloses wherein the card is a memory card (for example, see columns 1-4)

Regarding claim 5, Tondreault discloses wherein the lever mechanism includes a lever pivotally coupled with the connector via a pivot positioned near a base end of the lever (for example, see elements 28,30,22 Figs 2-4)

Regarding claim 6, Tondreault discloses the instant claimed invention except wherein the engaging surface is located on a middle portion of the lever.

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Suzuki discloses a connector assembly wherein an engaging surface is located on a middle portion of a lever (for example, see elements 39(2), 21,43(2), Figs 2-7B)

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have positioned the engaging surface in the middle portion of the lever mechanism as taught by Suzuki in the connector assembly as taught by Tondreault for the purpose of prying in cooperation with the circuit card to put the circuit card into and out of contact with the connector(see Suzuki column 3, lines 47-57)

Regarding claim 7, Tondreault discloses wherein the lever mechanism includes a contact surface adapted to be moved from a first open position to a second closed position, and wherein the contact surface moves a greater distance than a distance traveled by the engaging surface when the lever mechanism is moved from the first open position to the second closed position (for example, see elements 44,22, Figs 3,4). Moreover, it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform.

Regarding claim 8, Tondreault discloses further comprising:

an ejector attached to a base end of the lever mechanism to remove from the slot the card inserted therein when the lever mechanism is moved from a closed position to an open position(for example, see elements 36,22, Figs 2-4).

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Regarding claim 9, Tondreault discloses further comprising a locking mechanism coupled with a lever to lock the lever in a closed position (for example, Fig 2).

Regarding claim 10, Tondreault discloses wherein the locking mechanism is adapted to emit an audible sound as it locks into place (for example, see Figs 1-4). Moreover, it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform.

Regarding claims 11-13, the methods disclosed therein are deemed as inherent in the assembly and operation of the claimed apparatus of the preceding claims as fully met by (Tondreault, Suzuki) and are subsequently rejected since the references are cited as teaching or suggesting all the elements required for the assembly and operation of the claimed invention.

Regarding claim 14, Tondreault discloses an assembly comprising:

a connector having a slot therein(for example, see elements 10,14, Figs 1-5, see columns 1-4) to receive a card;

a first case attached to a first end of the connector, the first case having first and second opposing planar surfaces defining a channel there between (for example, see elements 12, 20, Figs 1-5, see columns 1-4)

- , and having a hole formed in each planar surface(for example, see holes that elements 28 are engaged with, best shown at Fig 1)
- ; a lever mechanism having a first end, a base end, and a middle portion, (for example, see elements 22, Figs 1-5, see columns 1-4)

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the lever mechanism having a contact surface movable by a user between a first position and a second position(for example, see elements 26, Figs 1-5, see columns 1-4); an ejector attached to the base end of the lever(for example, see elements 36 Figs 1-5, see columns 1-4) and a first and second pivots attached to a first and second sides of the lever, respectively, proximate the middle portion of the lever mechanism(for example, see elements 28, Figs 1-5, see columns 1-4)

Tondreault does not disclose an engaging surface attached to a surface of the lever mechanism above the ejector to engage a contact surface of the card during insertion of the card in the slot. The Office points out that although the card is not positively recited in the claims, Tondreault illustrates a card at element 16, Figs 1-5. Moreover, it has been held that the recitation that an element is "adapted to" perform a function is also not a positive limitation but only requires the ability to so perform.

Suzuki discloses a connector assembly comprising an engaging surface attached to a surface of the lever mechanism above the ejector to engage a contact surface of the card during insertion of the card in the slot (for example, see elements 39(2), 21,43(2), Figs 2-7B, also see column 3, lines 47-57), which states in part, ... The first and second levers 39 are for prying in cooperation with the card 21 to put the card 21 into and out of mechanical contact with the card edge connector and to bring the connecting pads 25 into and out of electrical contact with the conductive contacts 17."

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a lever mechanism with an

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engaging surface positioned as taught by Suzuki in the connector assembly as taught by Tondreault for the purpose of prying in cooperation with the circuit card to put the circuit card into and out of contact with the connector(see Suzuki column 3, lines 47-57)

Regarding claim 15, Tondreault discloses wherein the lever mechanism is pivotally coupled with the connector by insertion of the first pivot in the hole in the first planar surface of the first case and insertion of the second pivot in the hole in the second planar surface of the first case (for example, see Figs 1-4).

Regarding claim 16, Tondreault discloses wherein the engaging surface includes a surface defined by a protuberance (for example, see element 44, Figs 1-4).

Regarding claim 17, Tondreault discloses wherein the ejector includes a protuberance to engage a bottom edge of the card (for example, see element 36, Figs 1-4).

Regarding claim 18, Tondreault discloses wherein the lever mechanism is made of plastic (for example, see columns 1-4)

Regarding claim 19, Tondreault discloses a printed circuit board attached to a bottom surface of the connector (for example, see columns 1-4)

(11) Response to Argument

Appellant's arguments filed 01/24/2005 have been fully considered but they are not persuasive.

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At pages 3-5, and regarding claim 1, Appellants argue that Tondreault and Suzuki do not teach a lever mechanism including an engaging surface adapted to apply a lever force on the card during insertion of the card in the slot of the connector.

The Office points out that the limitations are encompassed by the teachings of the prior art. The prior art of record teaches and suggests that a lever force is applied on the card during insertion of the card in the slot of the connector. One of ordinary skill in the art, given the teachings of Tondreault and Suzuki would have contemplated that a lever force is applied by the lever mechanism during insertion of the card in the slot of the connector. Tondreault teaches and suggests that a lever force is applied by the lever mechanism 22 during insertion of the card in the slot of the connector as it is rotated from the open position to the closed position while, at the same time, lowering the card 16 into the card slot. This is so because, as the card is pushed down into the slot, the edge of the card bears on the lever and makes it rotate. This rotation is caused by an insertion lever force. Although the rejection does not expressly teach that a lever force is applied on the card during insertion of the card in the slot of the connector, it is clear that this is how the device functions.

Further, in Suzuki, a lever force is applied by engaging surface of the lever mechanism 39(2). This lever force is illustrated in operation by the sequence of Figs. 4A-5. One of ordinary skill in the art, following this sequence, would have also contemplated that, as the card 21 engages the engaging surface of lever mechanism 39(2), [refer to Fig. 4B] the card 21 is pushed downward into the card

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conductive contacts 17."

slot as engaging mechanism 39(2) is rotated from an open position (arrow direction II, Fig 4B) to a closed position.

Additionally, Suzuki teaches, at column 3, lines 47-57), which states in part,"
...The first and second levers 39 are for prying in cooperation with the card 21 to
put the card 21 into and out of mechanical contact with the card edge connector
and to bring the connecting pads 25 into and out of electrical contact with the

This teaching is deemed by the Office as an engaging surface positioned on a lever mechanism to apply a lever force on the card during insertion of the card in the slot of the connector as claimed by the Appellant. Again, it is clear that this is how the device functions.

Regarding the recitation that wherein the engaging surface is adapted to contact a contact surface on the card, the Office points out that this claim language merely means that the engaging surface is capable of contacting the card. The prior art of record, as illustrated above, possesses the elements, as well as, the ability to so perform the recited function. It is clearly seen from Figs 4A-5 that the edge of the lever contacts (i.e. touches) the card. This is why the lever can be rotated as a result of insertion of the card. If the contact surface was not capable of contacting the card, there would be no way that the card could make the lever rotate as it is being inserted.

Appellants further argue that the Office's reliance on the teaching of Suzuki which states in part," ... The first and second levers 39 are for prying in cooperation with the card 21 to put the card 21 into and out of mechanical

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contact with the card edge connector and to bring the connecting pads 25 into and out of electrical contact with the conductive contacts 17", appears to be a broken English translation and does not clearly or unambiguously teach the function of the lever. In response to this argument, the Office indicates that information used in the rejection is clearly and unambiguously taught in the reference as stated, as well as, by the sequence of Figs. 4A-5.

Further, at page 8, and regarding claims 11 and 13, the Appellants argue that the prior art does not sufficiently designate the particular part of the therein that is relied upon for disclosing the claim recitations.

In response, the Office indicates that this is a repeat of the argument addressed above, and is therefore moot.

Further, at page 10, and regarding claim 14, the Appellants argue that the prior art does not sufficiently designate the particular part of the therein that is relied upon for disclosing the claim recitations.

In response, the Office indicates that this is a repeat of the argument addressed above, and is therefore moot

For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,

Dameon E Levi Examiner Art Unit 2841

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February 18, 2005

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